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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,434	04/12/2004	Hongwei Kong	67108-089	1440
26096 7590 07/27/2007 CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			EXAMINER ELCENKO, ERIC J	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 07/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/822,434

Applicant(s)

KONG ET AL.

Examiner

Eric Elcenko

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 20, are rejected under 35 U.S.C. 102(e) as being anticipated by Knisely et al. (U.S. Pub. No. 2003/0223400)

In regard to Claim 20, Knisely teaches monitoring a plurality of frames on a channel, (In Fig. 1, there is shown the format of non-switch frames and switch frames which occurs during the switch from one sector to another, the collection of frames being the window being monitored, Para 15)

determining at least one window-based decision metric based on a sector switching indicator in at least one frame within a window containing at least two frames

(The network has a pool of parameters in which is contained a confidence metric pertaining to sector switching, (Abs, para 32,36))

determining a number of frames within the window that contain the sector switching indicator (referring again to Fig 1 of the format of non-switch and switch frames, the switch frame being identified by the parameters measured involving said frames, (para 12-15)

determining whether a sector switch is desired based on the determined at least one decision metric and the determined number of frames. (the BCS pools the network parameters from the various BTSs and determines a status of the mobile using the parameters passed to it, Para 36)

In regard to Claim 21 and 29, Knisely teaches determining a set of first-window-based decision metrics based on the frames within the window (the network has a pool of parameters that are used in the switching decisions (Para 15))

determining a second set of window-based decision metrics based on the frames within the window and determining which of the determined second metrics is the largest metric (one or more of several parameters may be reported to the BSC, in order to make the decision. There may be a confidence metric for each of a plurality of hypotheses, the BSC determines the current status of the mobile by adding the confidence metric for each of the plurality of hypotheses and selecting the hypotheses with the largest cumulative value. (Para 39)

determining whether the largest metric exceeds a selected threshold plus an accumulated value of the first metrics over the window. (The description of the equation used in para 56 involves comparing the metrics being sent to the BSC and a ratio, read as threshold in the instant case, is used to determine the status of the mobile specifically involving the confidence metrics, (para 48-60 describe each value and the effect))

In regard to Claim 22, Knisely teaches determining that a mobile station transmitting data in the frames within the window provided the sector switching indicator based on whether the determined largest metric exceeds the selected threshold plus the accumulated value of the first metrics. (The description of the equation used in para 56 involves comparing the metrics being sent to the BSC and a ratio, read as threshold in the instant case, is used to determine the status of the mobile specifically involving the confidence metrics, (para 48-60 describe each value and the effect))

In regard to Claim 23 and 25, Knisely teaches determining a pilot signal to noise ratio for each sector in an active set of the mobile station for confirming the determining that the mobile station provided a valid sector switching indicator (Para 40)

In regard to Claim 26, Knisely teaches wherein determining whether a sector switch is desired is a preliminary switch detection decision (hypotheses) the method comprising

forwarding the preliminary switch detection decision to a central entity (the status of the mobile is at the BSC, Para 36)

conducting a final switch detection decision based on a plurality of preliminary switch decisions (all the parameters are considered as used to determine a status, included confidence metric, up/down power signals, signal to noise ratio, which are forwarded to the BSC which aggregates them to determine the target BTS most likely identified, Para 43, 60)

In regard to Claim 28, Knisely teaches obtaining a serving metric corresponding to a normal channel quality report for a serving sector, (Abs, Para 22, 39, 60)

obtaining a target metric corresponding to a highest probability that the sector switching indicator has been sent to any one of an active set of sectors (para 53)

In regard to Claim 30, Knisely teaches estimating a sector switch completion time. (Para 15,16)

### ***Allowable Subject Matter***

3. Claims 24,27 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Elcenko whose telephone number is (571) 272-8066. The examiner can normally be reached on M-F 7:30 AM through 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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